

CLAIMS

I claim:

1. A method of making an electrically conductive molded article, comprising the steps of:

5 a) injecting a flowable mixture into a mold cavity having formed within a hollow mold, said mold cavity having an outer periphery;

said flowable mixture comprising:

a polymeric material;

a first electrically conductive additive selected from the group consisting

10 of metallic fibers and metallic particles; and

a second electrically conductive additive selected from the group consisting of carbon fibers and carbon particles;

whereby the first electrically conductive additive migrates away from the outer periphery of the mold cavity, and the second electrically conductive
15 additive migrates toward the outer periphery of the mold cavity;

b) curing the polymer in the hollow mold to form a molded article; and

c) ejecting the molded article from the mold.

2. The method of claim 1, wherein the polymeric material is a thermoplastic selected
20 from the group consisting of polyamides, polyimides, polyesters, polyolefins, polysulfones, fluoropolymers, and mixtures thereof.

3. The method of claim 2, wherein the polymeric material is selected from the group

consisting of acetal and nylons.

4. The method of claim 1, wherein the first electrically conductive additive comprises stainless steel fibers.

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5. The method of claim 4, wherein the second electrically conductive additive comprises carbon particles.

6. A molded article which is a product of the process of claim 1.

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7. A molded fuel filter housing which is a product of the process of claim 1.

8. A molded article formed from a composition comprising:

a pulverized polymeric material;

a first electrically conductive additive selected from the group consisting of metallic

15 fibers and metallic particles; and

a second electrically conductive additive selected from the group consisting of carbon fibers and carbon particles, wherein said first additive is most prevalent near a core of the article, and wherein said second additive is most prevalent near a surface of the article.

20 9. A molded article having a core portion and a surface portion and comprising:

a) a polymeric binder;

b) a first electrically conductive additive dispersed in the binder, said first additive selected from the group consisting of metallic fibers and metallic particles, said first additive

further being concentrated toward the core portion of the article; and

c) a second electrically conductive additive dispersed in the binder, said second additive selected from the group consisting of carbon fibers and carbon particles, said second additive further being concentrated toward the core portion of the article.

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10. The molded article of claim 9, wherein the polymeric binder is a thermoplastic selected from the group consisting of polyamides, polyimides, polyesters, polyolefins, polysulfones, fluoropolymers, and mixtures thereof.

10 11. The molded article of claim 10, wherein the polymeric material is selected from the group consisting of acetal and nylons.

12. The molded article of claim 11, wherein the first additive comprises stainless steel fibers, and the second additive comprises carbon particles.

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